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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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09/935,780

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Rong C. Fang

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COVINGTON & BURLING
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EXAMINER

MEW, KEVIN D

ART UNIT

PAPER NUMBER

2664

DATE MAILED: 04/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. ✓ 09/935,780	Applicant(s) FANG ET AL.	
	Examiner Kevin Mew	Art Unit 2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 August 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 8/24/2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

Specification

1. The abstract of the disclosure is objected to because the abstract should not include the title of the instant application. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-16 are rejected under 35 U.S.C. 102(b) as being anticipated by Izawa et al. (USP 5,796,734).

Regarding claim 1, Izawa discloses encapsulating data in a frame, wherein the frame (L2-PDU) comprises a header section (Header section, see col. 3, lines 57-60 and Fig. 4), a payload section (Payload section, see col. 3, lines 57-60 and Fig. 4), and a trailer section (Trailer section, see col. 3, lines 57-60 and Fig. 4), and wherein the header section (Header section, see col. 3, lines 57-60 and Fig. 4) comprises a method for transporting data, comprising: Segment Type field (Segment Type field, see Fig. 4) and a Final Payload Count Valid field (Header Check Sequence field HCS, see col. 4, lines 16-34 and Fig. 4), and wherein the payload section contains the data (Information field, see Fig. 4);

setting, responsive to the data, the Segment Type field (Segment Type field can be set to 00, 01, 10 or 11, see col. 4, lines 35-41) and the Final Payload Count Valid field (HCS field set to either 00100010 or 00000000, see col. 4, lines 16-41);

transporting the frame through a communication system (transporting protocol data units in a communication system, see col. 6, lines 46-60), and

extracting from the transported frame, responsive to the Segment Type field and the Final Payload Count Valid field, the data from the payload section (DS3 terminal extracts the L2-PDU from the DS3PLCP frame and then the payload portion of the L2-PDU unit is extracted according to the header of the L2-PDU, see col. 5, lines 58-67 and Fig. 1; note that the header of L2-PDU comprises Segment Type field and Header Check Sequence HCS field).

Regarding claim 2, Izawa discloses the method for transporting data of claim 1, wherein the contents of the payload section comprise, responsive to the Final Payload Count Valid field (Header Check Sequence HCS field; note that the payload portion of the L2-PDU unit is extracted according to the header of the L2-PDU, see col. 5, lines 24-58 and Fig. 1 and the header of L2-PDU comprises Header Check Sequence HCS field), a Final Payload Count field (Payload CRC, see col. 4, lines 50-67), and wherein extracting the data from the payload section is further responsive to the Final Payload Count field (data is extracted from the Payload Section Payload Length, see col. 5, lines 50-67).

Regarding claim 3, Izawa discloses an apparatus (SMDS System, see col. 1, lines 44-55) for transporting data, comprising:

means (subscriber terminal, see col. 1, lines 44-55) for encapsulating data in a frame, wherein the frame (L2-PDU) comprises a header section (Header section, see col. 3, lines 57-60 and Fig. 4), a payload section (Payload section, see col. 3, lines 57-60 and Fig. 4), and a trailer section (Trailer section, see col. 3, lines 57-60 and Fig. 4), and wherein the header section (Header section, see col. 3, lines 57-60 and Fig. 4) comprises a Segment Type field (Segment Type field, see Fig. 4) and a Final Payload Count Valid field (Header Check Sequence field HCS, see col. 4, lines 16-34 and Fig. 4), and wherein the payload section contains the data (Information field, see Fig. 4).

means for setting, responsive to the data, the Segment Type field (Segment Type field can be set to 00, 01, 10 or 11, see col. 4, lines 35-41) and the Final Payload Count Valid field (HCS field set to either 00100010 or 00000000, see col. 4, lines 16-41);

transporting the frame through a communication system (transporting protocol data units in a communication system, see col. 6, lines 46-60), and

extracting from the transported frame, responsive to the Segment Type field and the Final Payload Count Valid field, the data from the payload section (DS3 terminal extracts the L2-PDU from the DS3PLCP frame and then the payload portion of the L2-PDU unit is extracted according to the header of the L2-PDU, see col. 5, lines 58-67 and Fig. 1; note that the header of L2-PDU comprises Segment Type field and Header Check Sequence HCS field).

Regarding claim 4, Izawa discloses the apparatus for transporting data (SMDS System, see col. 1, lines 44-55) of claim 3, wherein the contents of the payload section comprise, responsive to the Final Payload Count Valid Field (Header Check Sequence HCS field; note that

the payload portion of the L2-PDU unit is extracted according to the header of the L2-PDU, see col. 5, lines 24-58 and Fig. 1 and the header of L2-PDU comprises Header Check Sequence HCS field), a Final Payload Count field (Payload CRC, see col. 4, lines 50-67), and wherein extracting the data from the payload section is further responsive to the Final Payload Count field (data is extracted from the Payload Section Payload Length, see col. 5, lines 50-67).

Regarding claim 5, Izawa discloses a computer-readable data structure, encoded on a computer-readable medium, for organizing data for transport (see Fig. 4), the structure comprising:

the frame (L2-PDU) comprises a header section (Header section, see col. 3, lines 57-60 and Fig. 4), a payload section (Payload section, see col. 3, lines 57-60 and Fig. 4), and a trailer section (Trailer section, see col. 3, lines 57-60 and Fig. 4), and wherein the header section (Header section, see col. 3, lines 57-60 and Fig. 4) comprises a Segment Type field (Segment Type field, see Fig. 4) and a Final Payload Count Valid field (Header Check Sequence field HCS, see col. 4, lines 16-34 and Fig. 4), and the contents of the Final Payload Count Valid field (Header Check Sequence HCS field) are responsive to the contents of the payload section (Header Check Sequence HCS field; note that the payload portion of the L2-PDU unit is extracted according to the header of the L2-PDU, see col. 5, lines 24-58 and Fig. 1 and the header of L2-PDU comprises Header Check Sequence HCS field).

Regarding claim 6, Izawa discloses the computer-readable data structure (see Fig. 4) for organizing data for transport of Claim 5, wherein the contents of the payload section comprise,

responsive to the Final Payload Count Valid Field (Header Check Sequence HCS field; note that the payload portion of the L2-PDU unit is extracted according to the header of the L2-PDU, see col. 5, lines 24-58 and Fig. 1 and the header of L2-PDU comprises Header Check Sequence HCS field), a Final Payload Count field (Payload CRC, see col. 4, lines 50-67).

Regarding claim 7, Izawa discloses a computer data signal (data format, see Fig. 4) embodied in a transmission system, comprising:

a frame for transporting data packets in diverse formats through a transmission system (transporting protocol data units in a communication system, see col. 6, lines 46-60), said the frame (L2-PDU) comprising a header section (Header section, see col. 3, lines 57-60 and Fig. 4), a payload section (Payload section, see col. 3, lines 57-60 and Fig. 4), and a trailer section (Trailer section, see col. 3, lines 57-60 and Fig. 4), and wherein the header section (Header section, see col. 3, lines 57-60 and Fig. 4) comprises a Segment Type field (Segment Type field, see Fig. 4) and a Final Payload Count Valid field (Header Check Sequence field HCS, see col. 4, lines 16-34 and Fig. 4), and the contents of the Final Payload Count Valid field (Header Check Sequence HCS field) are responsive to the contents of the payload section (Header Check Sequence HCS field; note that the payload portion of the L2-PDU unit is extracted according to the header of the L2-PDU, see col. 5, lines 24-58 and Fig. 1 and the header of L2-PDU comprises Header Check Sequence HCS field).

Regarding claim 8, Izawa discloses the computer data signal embodied in a transmission system of Claim 7, wherein the contents of the payload section comprise, responsive to the Final

Payload Count Valid Field (Header Check Sequence HCS field; note that the payload portion of the L2-PDU unit is extracted according to the header of the L2-PDU, see col. 5, lines 24-58 and Fig. 1 and the header of L2-PDU comprises Header Check Sequence HCS field), a Final Payload Count field (Payload CRC, see col. 4, lines 50-67).

Regarding claims 9 and 10, Izawa discloses an apparatus (SMDS System, see col. 1, lines 44-55) to perform a method for transporting a computer-readable data structure (see Figs 2 and 4), comprising: encapsulating data in a frame, wherein the frame (L3-PDU, see col. 3, lines 33-60 and Fig. 2) comprises a first header section and a first payload section associated with the first header section, a second header section and a second payload section associated with the second header section (each L3-PDU is divided into a plurality of L2-PDUs and each L2-PDU comprises a header section and a payload section, see Fig. 4), and a trailer section (Trailer Section of L3-PDU, see Fig. 2), and wherein the first header section comprises a First Service Type field (the first header of a first L2-PDU comprises an access control field to indicate an upward transmission channel; note that upward transmission channel is considered as a first service type, see col. 3, lines 61-67 and col. 4, lines 1-4 and Fig. 4) and the second header section comprises a Second Service Type field (the second header of a second L2-PDU comprises an access control field to indicate a downward transmission channel; note that downward transmission channel is considered as a second service type, see col. 3, lines 61-67 and col. 4, lines 1-4 and Fig. 4), and wherein the first payload section contains a first portion of the data (first L2-PDU contains a first payload section, see Figs. 2 and 5) and the second payload

section contains a second portion of the data (second L2-PDU contains a second payload section, see col. 3, lines 61-67 and col. 4, lines 1-4 and Figs. 2 and 5);

setting, responsive to the first portion of the data, the First Service Type field (setting the access control field to indicate it is upward transmission channel, see col. 3, lines 61-67 and col. 4, lines 1-4);

setting, responsive to the second portion of the data, the Second Service Type field (setting the access control field to indicate it is downward transmission channel, see col. 3, lines 61-67 and col. 4, lines 1-4);

transporting the frame through a communication system (transporting protocol data units in a communication system, see col. 6, lines 46-60),

extracting from the transported frame, responsive to the First Service Type field, the first portion of the data from the first payload section (extracting the payload portion of the L2-PDUs in accordance with the upward transmission channel, see col. 3, lines 61-67 and col. 4, lines 1-4); and

extracting from the transported frame, responsive to the Second Service Type field, the second portion of the data from the second payload section (extracting the payload portion of the L2-PDUs in accordance with the downward transmission channel, see col. 3, lines 61-67 and col. 4, lines 1-4).

Regarding claims 11 and 12, Izawa discloses a computer-readable data structure of a computer data signal, encoded on a computer-readable medium (see Figs 2 and 4), for organizing data for transport, the structure comprising:

a frame (L3-PDU, see col. 3, lines 33-60 and Fig. 2) comprises a first header section and a first payload section associated with the first header section, a second header section and a second payload section associated with the second header section (each L3-PDU is divided into a plurality of L2-PDUs and each L2-PDU comprises a header section and a payload section, see Fig. 4), and a trailer section (Trailer Section of L3-PDU, see Fig. 2), and wherein the first header section comprises a First Service Type field (the first header of a first L2-PDU comprises an access control field to indicate an upward transmission channel; note that upward transmission channel is considered as a first service type, see col. 3, lines 61-67 and col. 4, lines 1-4 and Fig. 4), and wherein the contents of the First Service Type field are responsive to the contents of the first payload section (when access control field indicates upward transmission channel, then the contents of the access control field are responsive to those L2-PDUs that are transmitted for upward transmission, see col. 3, lines 61-67 and col. 4, lines 1-4), and the contents of the Second Service Type field are responsive to the contents of the second payload section (when access control field indicates downward transmission channel, then the contents of the access control field are responsive to those L2-PDUs that are transmitted for downward transmission, see col. 3, lines 61-67 and col. 4, lines 1-4).

Regarding claims 13-14, Izawa discloses an apparatus to perform a method for transporting a computer-readable data structure of a computer signal (L3-PDU, comprising:

means for encapsulating data in a frame (L2-PDU, see Fig. 4), wherein the frame comprises a header section (Header section, see col. 3, lines 57-60 and Fig. 4), a payload section (Payload section, see col. 3, lines 57-60 and Fig. 4), and a trailer section (Trailer section, see col.

3, lines 57-60 and Fig. 4), and wherein the header section comprises a Routing Identification field (Message ID and destination address), and a Source Identification field (source address of the L2-PDU, see col. 3, lines 11-26), and wherein the payload section contains the data (see payload data, Figs 2 and 4);

means for setting, responsive to a logical frame routing connection, the Routing Identification field (Message ID and destination address are appended to the header of the L2-PDU, see col. 3, lines 4-14);

means for setting, responsive to a frame origination location, the Source Identification field (source address is appended to the header of the L2-PDU, see col. 3, lines 4-10);

means for transporting the frame through a communication system (transporting protocol data units in a communication system, see col. 6, lines 46-60); and

means for extracting from the transported frame the data from the payload section (DS3 terminal extracts the L2-PDU from the DS3PLCP frame and then the payload portion of the L2-PDU unit is extracted according to the header of the L2-PDU, see col. 5, lines 58-67 and Fig. 1; note that the header of L2-PDU comprises Segment Type field and Header Check Sequence HCS field).

Regarding claims 15-16, Izawa discloses a computer-readable data structure of a computer signal (L3-PDU and L2-PDU, see Figs 2 and 4), encoded on a computer-readable medium, for organizing data for transport, the structure comprising: a frame comprising a header section (Header section, see col. 3, lines 57-60 and Fig. 4), a payload section (Payload section, see col. 3, lines 57-60 and Fig. 4), and a trailer section (Trailer section, see col. 3, lines 57-60 and

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Fig. 4); and wherein the header section comprises a Routing Identification field (Message ID and destination address), and a Source Identification field (source address of the L2-PDU, see col. 3, lines 11-26), and wherein the contents of the Routing Identification field are responsive to a logical game routing connection (Message ID and destination address are responsive in determining the VCI/VPI of the received L2-PDU, see col. 3, lines 15-32), and the contents of the Source Identification field are responsive to a frame origination location (source address is responsive for determining the address of the data source, see col. 3, lines 4-10).

Conclusion

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure with respect to Unified Data Packet for encapsulating data packets having diverse formats.

US Patent 6,104,721 to Hsu


US Patent 5,369,649 to Murayama et al.

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kevin Mew whose telephone number is 571-272-3141. The examiner can normally be reached on 9:00 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wellington Chin can be reached on 571-272-3134. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Art Unit 2664



WELLINGTON CHIN
SUPERVISORY PATENT EXAMINER